

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
LAREDO DIVISION

BRABO INTERNATIONAL GROUP, INC. §
Plaintiff §
§
v. § CIVIL ACTION NO. 5:19-cv-00066
§ JURY
UNITED FIRE & CASUALTY COMPANY §
Defendants. §

DECLARATION OF THOMAS J. IRMITER

1. My name is Thomas Irmriter. I am of sound mind and capable of making this declaration. I have personal knowledge of the facts contained in this declaration, and I attest that the facts are true and accurate.

2. I am the owner and president of Forensic Building Science, Inc. (“FBS”), a company I founded in 2004. I have over 40 years of experience in the construction and building inspection industry and have been performing expert work for over 35 years. I have a certification from Minneapolis Technical College/Minneapolis College of Design as an Architectural Plan Reviewer and Architectural Plan Designer. I am licensed by the State of Minnesota as a Building Code Official. I was a member of National Association for the Remodeling Industry (“NARI”) between 1989 and 2000, served as president of the Minnesota Chapter twice and Chair of their Ethics Committee for 10 years. I was also a Certified Remodeler by NARI. My current CV is attached as Exhibit “A.” I have qualified by numerous courts in Texas and other jurisdictions as a Building Failure Causation Expert, Building Codes Experts and a Scope of Damages and Cost to Repair Expert.

3. In 1984, I bought my father’s business and ran that business until 2000. I grew the business from four or five employees to 75 employees, into a full design, build company which include an electrical division, a painting division, staff architects producing our own designs and handling all of our own engineering. The company was well versed in new construction, residential and commercial

including the design and installation of metal roofs.

4. As a contractor, consultant, and building code official, I have evaluated over 5000 projects involving wind and hail damage to a commercial property, including metal roofing assemblies.

5. I began performing expert work more than 30 years ago for Marvin Windows and have evaluated building causation failures of all kinds in over 40 states, Mexico, and Puerto Rico. In the design build practice, my company was the first design build contractor in the State of Minnesota. In the design build practice, we performed an initial phase one design, created initial design and pricing parameters and an architect's budget. Phase two consisted of full working drawings and a forensic investigation of the property which included destructively cutting into walls, floors, and roof assemblies to determine what the as-built condition of a property was. This was important in determining the final scope of the project and accurate estimates.

6. Another aspect of my expert work during that time was representing homeowners and building owners and insurance companies in litigation concerning water damage to buildings.

7. Part of my current business also includes providing construction management services overseeing and monitoring both new construction and reconstruction including presale inspections and due diligence for buildings, banks, investment groups and individuals.

8. Specifically, in this case and consistent with industry methodology and published ASTM Standards, under my direction FBS conducted a three-part inspection in this matter. The first part of all FBS inspections consists of a detailed visual on-site analysis looking at the conditions on the site at the time of the inspection primarily focused on the exterior envelope including roof assemblies, and facades and foundations on the four sides of the building. The goal of the visual inspection is to look for anything indicative of this building changing from its original construction.

9. The second part of our inspection is the document review which includes analyzing the maintenance and service history when available, various damage patterns indicative of pre- or post-storm

events and building blueprints when available. In addition, we interview tenants, building owners, and others who may have been there before and after the event occurred in an attempt to note pre-storm conditions.

10. The third phase is to conduct a more detailed inspection which include quantification of damages (e.g., number of hail hits within a quantifiable area of a roof assembly) and separate out pre-storm damage and other types of damage including defects in design, improper installation, or lack of maintenance. This condition assessment is essential in developing a damage causation theory and scope of repairs. In some instances, invasive inspections are performed. Ensuing damage to the interior elements is also documented. This damage is also segregated between damage that existed before the storm and new damage that has occurred as a result of the storm.

11. Because of my 40 plus year background in construction and estimating, I also look at what needs to be done to put the damaged structure back to a pre-loss condition.

12. FBS, along with Texas-licensed engineer Brian Johnson (“Johnson”), were retained in the above-cited case to serve as experts for the Plaintiff, Brabo International Group, Inc. (“Brabo”). As part of our engagement, as is customary, FBS personnel visited and performed a comprehensive inspection over several days of the properties located 11909 Auburn Rd., Laredo, Texas 78405 (“Auburn”) and 12122 JEF Dr., Laredo, Texas 78045 (“JEF”) (the “Properties”). FBS and Johnson completed the last phase of our evaluation, in the form of the research and separate joint reports, for each Property. The report for Auburn is attached as Exhibit “B” to this declaration; the report for JEF is attached as Exhibit “C.”

13. Based on our evaluation of the building and established methodology regarding the sequence and extent of the loss, our chief opinions are as follows for the Properties:

Based upon evidence collected from weather research and the physical inspection of the buildings, we concluded that the roof systems and interiors were damaged by wind and hail which occurred during the May 21, 2017 storm event (the “Storm”). In our opinion, complete replacement of the roofs and interior components of the buildings is necessary.

Based upon our training, education, experience, a reasonable degree of building science and engineering certainty and the information gathered during our inspection and weather data search, it is more likely than not that the observed damages to the interiors was a result of the Storm. On May 21, 2017, there was sufficient wind and hail to cause the damages detailed throughout our reports and estimates.

While no one knows the exact wind-speed experienced by each property during the Storm, winds were reported by numerous sources as high as 90 miles per hour in the area and there was also objective onsite evidence of wind-caused noticeable roof panel uplift, panel separation, permanent panel distortion, compression and bending of fasteners, and storm created openings at seams, consistent with 80+ mph winds. The objective onsite evidence also demonstrated that the winds from the Storm exceeded the minimum design loads, considering the type and age of both roofing systems. Damage from wind requires full replacement of the roofs' panels. Based on similar projects, the age and condition of the panels, surgical repairs to individual panels will likely damage surrounding panels and any underdeck insulation. Any damage to structural elements (roof deck, clips, fasteners, purlins) will require sealed details from a licensed civil or structural engineer before reuse.

According to our review of NOAA reports and other localized weather data from the public adjuster's file, hail between 1.00" and 4.00" in size fell within the vicinity of the Properties. In our opinion, hail consistent with 2" size as well as smaller dense hail fell at the Properties. Since the Storm, multiple locations throughout each building are reported to leak after rain events. Damage to these metal roof panels from hail created a variety of indentations that continue to collect debris, sediment and water. According to the MCA Roofing Installation Manual Circa 2014, among other sources cited above, even small amounts of trapped water can cause premature corrosion to occur at the impact locations. Indentations are less ductile (and more prone to puncture from future hail and normal weathering effects) than the metal prior to hail impact as the areas are permanently deformed by stressing the metal into the strain-hardening region. These indentations are not expected to diminish with time.

Damage to the metal roof panels from hail covered approx. 80% of the roofing areas on the Properties. The indentations were consistent with damaged samples from these roofs that were separately submitted, tested, and microscopically analyzed by Stolk Labs ("Stolk"). Stolk concluded these impact locations were functionally damaged in that the metallurgical bond between the protective aluminum roof coating and steel substrate had been permanently damaged at hailstone impact sites, which diminished the expected lifespan of the roof. While Stolk had a variety of other conclusions they reached based on their microscopic analysis of panels from each roof, their findings were consistent with FBS' onsite observations and witness interviews that demonstrated the Properties had never experienced major roof damage or any other exterior damage significant enough to cause numerous instances of interior leaking throughout the interiors of the Properties.

Based on our interior inspections of the buildings and the information provided to FBS regarding when the leaking began in relation to the date of loss, including the location of these leaks, we concluded that it is more likely than not that the hail, wind and ensuing water damage we observed was a result of the Storm. FBS was actually onsite when Auburn was experiencing light rain—as such, we were able to independently correlate and validate the

location of a few of the leaks (previously identified by the Underpaid Claim Roof Leak Reports) as the same general location of leaks which occurred for the first time after the Storm.

Failure to completely remove and replace the damaged building components at the Properties will result in additional damage to the interior due to water intrusion. In our opinion, additional costs to repair will be required to meet the current required code or manufacturer's installation instructions. Based on our inspection of the interiors, there is water intrusion occurring at isolated locations.

14. While the deposition transcripts of two of the tenant representatives were unavailable at the time of my deposition, I had an opportunity to review them in addition to the deposition transcript of Blanca Moore and her Declaration. The testimony from these three witnesses and Ms. Moore's Declaration are consistent with FBS' onsite findings and interviews; namely, there were no recurrent or widespread leaks ever reported by any of the tenants prior to the significant wind and hailstorm on May 21, 2017. It is clear there were leaks and water streaks down walls in multiple places throughout both properties in spaces which had never experienced leaking before, as also confirmed by FBS' onsite interviews. According to the testimony, the water damage from the Storm actually destroyed some of the inventory of the Auburn tenant.

15. I have considered the other potential causes raised by BSC Forensics and have ruled them out. The cause of the loss and the damages contained within the buildings was due to the Storm. Other purported storms in the same county as the Properties were not the cause of this loss; the May 21, 2017 wind and hailstorm was. In particular, Mr. Spiekerman from BSC relies on splatter alone as his estimation of the actual hail size from the Storm. Hail splatter is often much smaller. Even published literature referenced in the Koontz Study and from HAAG which is used in their training claims that metal indentations are actually 0.8 of the actual hailstone sizes. Further, mechanical damage, wear and tear (aging), and installation deficiency did not cause these damages. Those potential causes have been evaluated and accounted for in our opinions, and our opinions

reflect an allocation between covered damages (caused by the Storm), and other, potential non-covered damages identified by the insurance carrier and their consultants.

16. The Storm caused the need to make the repairs and replacements recommended in our reports and estimates. Additionally, these damages are not merely cosmetic in nature, and the Storm's hail impact damages to both roofing systems have caused the failure of these roof coverings and have caused these roofs to no longer to be able to perform their intended function, as evidenced by the widespread leaking that was reported and of which FBS saw evidence of. While the Stolk written reports and photographs detail Stolk's various opinions and the data upon which they relied, I also had the opportunity to review the deposition transcript of David Stolk, which had not been taken at the time of my deposition. Mr. Stolk's testimony helped me confirm that Stolk's microscopic examination and laboratory testing of the panels were consistent with industry methodology and published standards in his field. His testimony further confirmed that Stolk's analysis of the indentations from the panels showed that the hail perforated down to the substrate, and in several locations, down to the intermetallic. Mr. Stolk's testimony highlighted his findings of localized corrosion at several of the hail strikes that would not have been visible to the naked eye during our inspection, but which were readily visible with scanning electron microscopy. Stolk's findings reinforced the type of functional damage FBS observed and documented throughout the metal roofs at the Properties.

17. It would have been far more expensive and damaging to these roofing systems to fully trace leaks and remediate them than to replace the roof assemblies entirely. In our opinion, complete removal of the roof materials to the roof deck and replacement of any water damaged roof decking, as well as the addition of insulation below the roof decking (per current code requirements), is required at the Properties.

18. Any damage to structural elements (roof deck, clips, fasteners, purlins) will require sealed

details from a licensed civil or structural engineer before reuse. This will add a substantial cost burden to the roof replacement costs.

19. In my opinion, based on changes to the building and energy codes from the date of original construction to the date of loss, additional costs to repair will be required to meet the current required code and manufacturer's installation instructions.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed on this February 10, 2021.



Digitally signed

Thomas J. Irmiter
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DOB: 10/19/57